



# Jefferson Lab Alignment Group

## Data Transmittal

**TO:** M. Ito, D. Kashy

**DATE:** Sep 03 2004

**FROM:** James Dahlberg

**Checked:**

**# :** B940

### DETAILS:

Below are the results from the Hall B HyCal detector calibration performed on Aug. 27, 2004. The values are in a beam following system relative to ideal CLAS centerline. Actual CLAS center is beam left 0.22 mm and high 0.66 mm. A -Z is upstream, a +X is to the beam left, and a +Y is above. A +pitch is CCW looking from the beam right, a + roll is CCW looking downstream, and a -yaw is CCW looking from above. The locations are labeled as noted during the survey. Values below are in millimeters and degrees.

| LOC. | Z        | X       | Y       | ROLL  | PITCH | YAW    |
|------|----------|---------|---------|-------|-------|--------|
| 2    | -8524.01 | -582.36 | 596.28  | 0.008 | 0.123 | -0.085 |
| 3    | -8524.04 | -582.43 | 596.23  | 0.008 | 0.119 | -0.085 |
| 4    | -8523.96 | -582.44 | 596.29  | 0.009 | 0.122 | -0.084 |
| 5    | -8524.18 | -297.83 | 596.49  | 0.015 | 0.118 | -0.089 |
| 6    | -8524.71 | -11.65  | 596.54  | 0.014 | 0.092 | -0.089 |
| 7    | -8524.69 | -11.35  | 596.61  | 0.010 | 0.088 | -0.088 |
| 8    | -8524.74 | -11.66  | 596.57  | 0.012 | 0.091 | -0.089 |
| 9    | -8524.73 | 1.34    | 596.57  | 0.012 | 0.090 | -0.088 |
| 6_2  | -8524.71 | -11.68  | 596.58  | 0.012 | 0.089 | -0.088 |
| 7_2  | -8524.70 | -11.36  | 596.52  | 0.015 | 0.092 | -0.089 |
| 8_2  | -8524.86 | -11.69  | 596.54  | 0.014 | 0.092 | -0.091 |
| 9_2  | -8525.60 | 274.24  | 596.67  | 0.008 | 0.060 | -0.088 |
| 10   | -8525.72 | 584.85  | 596.72  | 0.013 | 0.067 | -0.087 |
| 11   | -8525.62 | 584.71  | 596.73  | 0.013 | 0.066 | -0.087 |
| 12   | -8525.60 | 584.74  | 596.74  | 0.012 | 0.066 | -0.086 |
| 12_1 | -8525.82 | 584.74  | 596.90  | 0.013 | 0.066 | -0.089 |
| 12_2 | -8525.66 | 584.69  | 596.66  | 0.016 | 0.065 | -0.087 |
| 14   | -8525.12 | 584.53  | -3.59   | 0.026 | 0.050 | -0.087 |
| 16   | -8525.18 | 584.49  | -3.85   | 0.028 | 0.055 | -0.088 |
| 17   | -8525.08 | 584.53  | -3.60   | 0.027 | 0.052 | -0.086 |
| 19   | -8525.77 | 584.45  | -698.43 | 0.030 | 0.034 | -0.097 |
| 21   | -8525.76 | 584.41  | -696.73 | 0.034 | 0.036 | -0.097 |
| 22   | -8525.88 | 584.45  | -698.47 | 0.029 | 0.034 | -0.099 |
| 22_1 | -8525.93 | 584.47  | -698.56 | 0.031 | 0.035 | -0.100 |
| 22_2 | -8525.90 | 584.47  | -698.56 | 0.029 | 0.035 | -0.099 |
| 23   | -8525.91 | 274.40  | -698.51 | 0.022 | 0.021 | -0.099 |
| 24   | -8525.24 | -11.56  | -698.53 | 0.025 | 0.052 | -0.102 |
| 25   | -8524.38 | -431.25 | -698.60 | 0.023 | 0.079 | -0.099 |
| 26   | -8524.19 | -582.65 | -698.68 | 0.018 | 0.084 | -0.098 |
| 27   | -8524.13 | -582.65 | -697.53 | 0.017 | 0.086 | -0.097 |
| 28   | -8524.12 | -582.64 | -697.50 | 0.015 | 0.084 | -0.097 |
| 29   | -8525.31 | -11.88  | -697.35 | 0.024 | 0.053 | -0.107 |
| 30   | -8525.34 | -11.89  | -697.90 | 0.025 | 0.054 | -0.108 |
| 31   | -8525.06 | -11.88  | -697.91 | 0.026 | 0.055 | -0.103 |